IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

application of: Chang Application No. 09/701,536

Filed: November 19, 2000

For: NUCLEIC ACID VACCINES FOR

PREVENTION OF FLAVIVIRUS INFECTION

Examiner: Not yet known

Date: April 15, 2003

Art Unit: 1642

CERTIFICATE OF MAILING

PATENI TO THE CHILLIAN TO SO T I hereby certify that this paper and the documents referre to as being attached or enclosed herewith are being deposited with the United States Postal Service on April 15, 2003 as First Class Mail in an envelope addressed to: COMMISSIONER FOR PATENTS, WASHINGTON,

D.C. 20231.

Tanya M. Harding, Ph.D. Attorney for Applicant

INFORMATION DISCLOSURE STATEMENT PURSUANT TO 37 C.F.R. §

COMMISSIONER FOR PATENTS WASHINGTON, DC 20231

Listed on the accompanying form PTO-1449 and enclosed herewith are several English-language documents and one French-language document with an English-language abstract. Applicant respectfully requests that these documents be listed as references cited on the issued patent.

Applicant filed this Information Disclosure Statement ("IDS") before the mailing date of a first Office action on the merits. As a result, no fee should be required to file this IDS. However, if the Patent Office determines that a fee is required for Applicant to file this Information Disclosure Statement, please see the attached transmittal letter for deposit account authority.

Respectfully submitted,

KLARQUIST SPARKMAN, LLP

By

Tanya M. Harding, Ph.D. Registration No. 42,630

One World Trade Center, Suite 1600 121 S.W. Salmon Street Portland, Oregon 97204 Telephone: (503) 226-7391

Facsimile: (503) 228-9446

AATION DISCLOSURE STATEMENT BY APPLICANT

Attorney Docket Number	6395-64907
Application Number	09/701,536
Filing Date	November 19, 2000
First Named Inventor	Chang
Art Unit	1642
Examiner Name	Not yet known

U.S. PATENT DOCUMENTS

Examiner's Initials*	Cite No. (optional)	Number	Date	Name to C
		4,810,492	March 7, 1989	Fujita et al.
		5,021,347	June 4, 1991	Yasui et al.
		5,229,293	July 20, 1993	Matsuura et al.
		5,494,671	Feb. 27, 1996	Lai et al.
		5,514,375	May 7, 1996	Paoletti et a1.
		6,074,865	June 13, 2000	Kelly et al.

FOREIGN PATENT DOCUMENTS

Examiner's Initials*	Cite No. (optional)	Number	Date	Country
		WO 92/02548 (French w/English abstract)	Feb. 20, 1992	WIPO
		WO 93/06214	April 1, 1993	WIPO
		WO 02/072036	Sept. 19, 2002	WIPO
		WO 02/083903	Oct. 24, 2002	WIPO
		JP 89025725 (English Abstract only)	May 1989	JAPAN
		JP 53133627 (English Abstract only)	November 1978	JAPAN
		JP 63004895 (English Abstract only)	1963	JAPAN
		JP 63105682 (English Abstract only)	May 10, 1988	JAPAN
		JP 65000611 (English Abstract only)	1965	JAPAN

EXAMINER DATE CONSIDERED:

^{*} Examiner: Initial if reference considered, whether or not in conformance with MPEP 609. Draw line through cite if not in conformance and not considered. Include copy of this form with next communication to applicant.



INFORMATION DISCLOSURE STATEMENT BY APPLICANT

	- SE 10
Attorney Docket Number	6395-64907
Application Number	09/701,536
Filing Date	November 19, 200
First Named Inventor	Chang 8
Art Unit	1642
Examiner Name	Not yet known

				Examin	er Name	Not yet known	8
		JP 67025408 (English Abstract only)	1967		JAPAN		
		JP 7265093 (English Abstract only)	October 1995	5	JAPAN		
Examiner's Initials*	Cite No. (optional)	•	OTHER DOC	CUMENT	S		
		Anderson et al., "Isolation of West Nile Virus from Mosquitoes, Crows, and a Cooper's Hawk in Connecticut," Science 286(5448):2331-2333, Dec. 17, 1999					
		Asnis et al., "The West Nile Virus Outbreak of 1999 in New York: The Flushing Hospital Experience," Clin. Infect. Dis. 30: 413-418, 2000					
		Azevedo et al., "Main feature	s of DNA-based in	nmunization	vectors," Braz. J. Me	d. Biol. Res. 32(2):147-153, 199	99
						que 4 Virus Structural Proteins weephalitis," J. Virol. 63(6):2853-2	
		Chang et al., "A Single Intramuscular Injection of Recombinant Plasmid DNA Induces Protective Immunity and Prevents Japanese Encephalitis in Mice," J. Virol. 74(9):4244-4252, May 2000					
		Davis et al., "West Nile Virus Recombinant DNA Vaccine Protects Mouse and Horse from Virus Challenge and Expresses in Vitro a Noninfectious Recombinant Antigen That Can Be Used in Enzyme- Linked Immunosorbent Assays," J. Virol. 75(9):4040-4047, 2001 (published on-line April 4,2001)					
		Deubel et al., "Nucleotide Sequence and Deduced Amino Acid Sequence of the Structural Proteins of Dengue Type 2 Virus, Jamaica Genotype," Virology 155:365-377, 1986					
 		Deubel et al., "Nucleotide Sequence and Deduced Amino Acid Sequence of the Nonstructural Proteins of Dengue Typ 2 Virus, Jamaica Genotype: Comparative Analysis of the Full-Length Genome," Virology 165:234-244, 1988					Туре
		Dmitriev et al., "Immunization of tick-borne encephali	n with recombinan	t vaccinia vii	uses expressing struc	etural and part of the nonstructure tis," J. Biotechnol. 44:97-103, 1	<u>ral</u> 1996
		region of tick-borne encephalitis virus cDNA protect mice against lethal encephalitis," <i>J. Biotechnol.</i> 44:97-103, 1996 Duarte dos Santos <i>et al.</i> , "Complete nucleotide sequence of yellow fever virus vaccine strains 17DD and 17D-213," <i>Virus Res.</i> 35:35-41, 1995					
		Falgout et al., "Proper Process Hydrophobic Signal Sequence				SI Requires the N-Terminal J. Virol. 63(5):1852-1860, May	1989
	-	Falgout et al., "Immunization of Mice with Recombinant Vaccinia Virus Expressing Authentic Dengue Virus Nonstructural Protein NSI Protects Against Lethal Dengue Virus Encephalitis," J. Virol. 64(9):4356-4363, 1990					
Fonseca et al. "Recombinant vaccinia viruses co-expressing dengue-1 glycoprot antibodies in mice," Vaccine 12(3):279-285, 1994		dengue-1 glycoprotei	n prM and E induce neutralizing	3			

DATE CONSIDERED:

^{*} Examiner: Initial if reference considered, whether or not in conformance with MPEP 609. Draw line through cite if not in conformance and not considered. Include copy of this form with next communication to applicant.



INFORMATION DISCLOSURE STATEMENT BY APPLICANT

1	Attorney Docket Number	6395-64907
ĺ	Application Number	09/701,536
l	Filing Date	November 19, 200
Ì	First Named Inventor	Chang
	Art Unit	1642
	Examiner Name	Not yet known
_		·

	Art Unit	1642	83
	Examiner Name	Not yet known	00000
Mackow et al., "The Nucleotide Sequence of De Proteins," Virology 159:217-228, 1987	engue Type 4 Virus: Analysis of Ge	nes Coding for Nonstructur	ral
Mandl et al., "Complete Genomic Sequence of F Mosquito-Borne Flaviviruses," Virology 194:17:		etic Elements in Tick-Borne	e Versus
Martin et al., "Standardization of Immunoglobul Diagnosis of Arboviral Infections," J. Clin. Micr.			ıtine
Mir et al., "High-efficiency gene transfer into sk 96:4262-4267, April 1999	eletal muscle mediated by electric p	pulses," Proc. Nat. Acad. Se	ci. USA
 Monath, "Flaviviruse," Virology (R.N. Fields, ec	1.)-763-814,-1990		
Nitayaphan et al., "Nucleotide Sequence of the Vaccine Derivative, SA-14-14-2," Virology 177:		Encephalitis Virus and Its A	ttenuated
Osatomi et al., "Nucleotide Sequence of Dengue Virus Genes 2(1):99-108, 1988	e Type 3 Virus Genomic RNA Enco	ding Viral Structural Prote	ins,"
Pincus et al., "Recombinant vaccinia virus produ lethal yellow fever encephalitis," Virology 187:2		ow fever virus protects mic	ce from
Ramelow et al., "Detection of tick-borne enceph reaction," J. Virol. Meth. 45:115-9, 1993	alitis virus RNA in ticks (Ixodes ric	cinus) by the polymerase ch	ain
Rice et al., "Nucleotide Sequence of Yellow Fev Science 229:726-733, August 23, 1985	er Virus: Implications for Flaviviru	s Gene Expression and Evo	olution,"
Roehrig et al., "Identification of Epitopes on the Antibodies," Virology 128:118-126, 1983	E Glycoprotein of Saint Louis Enc	ephalitis Virus Using Mond	oclonal
Roehrig et al., "Synthetic Peptides Derived from Valley Encephalitis Virus Elicit Antiviral Antibo		e of the E-Glycoprotein of	Murray
Sato <i>et al.</i> , "Immunostimulatory DNA Sequence 273(5273):352-354, July 19, 1996	s Necessary for Effective Intraderm	nal Gene Immunization," So	cience
Schalich, et al., "Recombinant subviral particles system for studying flavivirus envelope glycopro			ı model
Sela. The Choice of Carrier. Synthetic Vaccines 1987	Volume I (edited by Arnon) CRC Pr	ress Inc Boca Raton, FL. p	ор. 83-92,
Sumiyoshi et al., "Complete Nucleotide Sequence 161:497-510, 1987	ce of the Japanese Encephalitis Viru	is Genome RNA," Virology	,

DATE CONSIDERED:	
	ĺ

^{*} Examiner: Initial if reference considered, whether or not in conformance with MPEP 609. Draw line through cite if not in conformance and not considered. Include copy of this form with next communication to applicant.



INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Attorney Docket Number	6395-64907 🕏
Application Number	09/701,536
Filing Date	November 19, 2000
First Named Inventor	Chang
Art Unit .	1642
Examiner Name	Not yet known

	Examiner Name	Not yet known
Trent et al., "Partial Nucleotide Sequence on s2b," Virology 156:293-304, 1987	of St. Louis Encephalitis Virus RNA:	Structural Proteins. NS1 ns2a and
Zhang et al., "Immunization of Mice with I Baculovirus Recombinant Induces Resistar		
Zhang et al., "Passive Protection of Mice, 6 Antibodies," J. Med. Virol. 29:133-138, 19		e Encephalitis With Monoclonal
Zhao et al., "Cloning Full-Length Dengue" Proteins," Virology 155:77-88, 1986	Type 4 Viral DNA Sequences: Analy	sis of Genes Coding for Structural
Zhao et al., "Expression of Dengue Virus S Virus," J. Virol. 61(12):4019-4022, Decem		Protein NS ₁ by a Recombinant Vaccinia
"Update: Surveillance for West Nile Virus Rep. 49(09):178-179, Mar. 10, 2000	in Overwintering Mosquitoes Nev	v York, 2000," Morb. Mortal. Wkly.
"Update: West Nile Virus Activity Nort Sept. 15, 2000	heastern United States, 2000," Morb.	Mortal. Wkly. Rep. 49(36):820-822,

	
EXAMINER	DATE
SIGNATURE:	CONSIDERED:

^{*} Examiner: Initial if reference considered, whether or not in conformance with MPEP 609. Draw line through cite if not in conformance and not considered. Include copy of this form with next communication to applicant.